ME 8: Containerization and Docker

Exercise 4: Sharing images

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I.   Getting started

```
PS C:\Users\tingc> docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com
to create one.
Username: tbmortaba
Password:
time="2021-06-12T12:53:31+08:00" level=error msg="(ac2065b0) 73b4b6d1-CredentialHelperPKG C<-S No response POST /registry/credstore-up
dated (1.1669455s): Post \"http://ipc/registry/credstore-updated\": context deadline exceeded (Client.Timeout exceeded while awaiting
headers)[[STACK]]"
time="2021-06-12T12:53:32+08:00" level=error msg="(8005cd83) 73b4b6d1-CredentialHelperPKG C<-S No response POST /registry/credstore-up
dated (1.0079612s): Post \"http://ipc/registry/credstore-updated\": context deadline exceeded (Client.Timeout exceeded while awaiting
headers)[[STACK]]"
Login Succeeded
```

II.   Finding images

```
PS C:\Users\tingc> docker search kafka
NAME                                    DESCRIPTION                              STARS      OFFICIAL    AUTOMATED
wurstmeister/kafka                      Multi-Broker Apache Kafka Image          1375                   [OK]
spotify/kafka                           A simple docker image with both Kafka and Zo…  413             [OK]
bitnami/kafka                           Apache Kafka is a distributed streaming plat…  242             [OK]
sheepkiller/kafka-manager               kafka-manager                            204                    [OK]
kafkamanager/kafka-manager              Docker image for Kafka manager           124
ches/kafka                              Apache Kafka. Tagged versions. JMX. Cluster-…  117             [OK]
hlebalbau/kafka-manager                 CMAK (previous known as Kafka Manager) As Do…  83              [OK]
landoop/kafka-topics-ui                 UI for viewing Kafka Topics config and data …  36              [OK]
solsson/kafka                           http://kafka.apache.org/documentation.html#q…  22              [OK]
johnnypark/kafka-zookeeper              Kafka and Zookeeper combined image       22
debezium/kafka                          Kafka image required when running the Debezi…  21              [OK]
landoop/kafka-lenses-dev                Lenses with Kafka. +Connect +Generators +Con…  20              [OK]
danielqsj/kafka-exporter                Kafka exporter for Prometheus            19                     [OK]
landoop/kafka-connect-ui                Web based UI for Kafka Connect.          17                     [OK]
digitalwonderland/kafka                 Latest Kafka - clusterable               15                     [OK]
tchiotludo/kafkahq                      Kafka GUI to view topics, topics data, consu…  6               [OK]
solsson/kafkacat                        https://github.com/edenhill/kafkacat/pull/110  5               [OK]
solsson/kafka-manager                   Deprecated in favor of solsson/kafka:cmak  5                   [OK]
solsson/kafka-prometheus-jmx-exporter   For monitoring of Kubernetes Kafka clusters …  4               [OK]
mesosphere/kafka-client                 Kafka client                             3                      [OK]
anchorfree/kafka                        Kafka broker and Zookeeper image         2
zenko/kafka-manager                     Kafka Manger https://github.com/yahoo/kafka-…  2               [OK]
digitsy/kafka-magic                     Kafka Magic images                       2
zenreach/kafka-connect                  Zenreach's Kafka Connect Docker Image    2
openwhisk/kafkaprovider                 Apache OpenWhisk event provider service for …  2               [OK]
PS C:\Users\tingc> docker pull spotify/kafka
Using default tag: latest
latest: Pulling from spotify/kafka
386a066cd84a: Pull complete
75ea84187083: Pull complete
3e2e387eb26a: Pull complete
eef540699244: Pull complete
1624a2f8d114: Pull complete
7018f4ec6e0a: Pull complete
6ca3bc2ad3b3: Pull complete
658810c91c6a: Pull complete
c8bd0e6d651a: Pull complete
d471f5c9f3f2: Pull complete
Digest: sha256:cf8f8f760b48a07fb99df24fab8201ec8b647634751e842b67103a25a388981b
Status: Downloaded newer image for spotify/kafka:latest
docker.io/spotify/kafka:latest
PS C:\Users\tingc> docker images
REPOSITORY        TAG       IMAGE ID       CREATED         SIZE
delner/ping       latest    6db9cd5f574f   28 minutes ago  139MB
ubuntu            16.04     9ff95a467e45   3 weeks ago     135MB
spotify/kafka     latest    a9e0a5b8b15e   4 years ago     443MB
```

III.   Tagging images

```
PS C:\Users\tingc> docker tag delner/ping tbmortaba/ping:1.0
PS C:\Users\tingc> docker images
REPOSITORY        TAG       IMAGE ID       CREATED          SIZE
delner/ping       latest    6db9cd5f574f   31 minutes ago   139MB
tbmortaba/ping    1.0       6db9cd5f574f   31 minutes ago   139MB
ubuntu            16.04     9ff95a467e45   3 weeks ago      135MB
spotify/kafka     latest    a9e0a5b8b15e   4 years ago      443MB
PS C:\Users\tingc> docker rmi delner
Error: No such image: delner
PS C:\Users\tingc> docker rmi delner/ping
Untagged: delner/ping:latest
PS C:\Users\tingc> docker images
REPOSITORY        TAG       IMAGE ID       CREATED          SIZE
tbmortaba/ping    1.0       6db9cd5f574f   32 minutes ago   139MB
ubuntu            16.04     9ff95a467e45   3 weeks ago      135MB
spotify/kafka     latest    a9e0a5b8b15e   4 years ago      443MB
```

IV.   Pushing images

```
PS C:\Users\tingc> docker push tbmortaba/ping:1.0
The push refers to repository [docker.io/tbmortaba/ping]
7b1bd5700e14: Pushed
cdc4d0cd3d15: Mounted from library/ubuntu
43d05a2c9517: Mounted from library/ubuntu
1902cf049561: Mounted from library/ubuntu
9fe04650404a: Mounted from library/ubuntu
1.0: digest: sha256:1c9982f1564f2ac5409cabeada95c39b3ad11e0fc38f198529d080b111bafc89 size: 1361
```